

OTAN SANS CLASSIFICATION

NORTH ATLANTIC TREATY ORGANIZATION
ORGANISATION DU TRAITE DE L'ATLANTIQUE NORD

MILITARY AGENCY FOR STANDARDIZATION (MAS)
BUREAU MILITAIRE DE STANDARDISATION (BMS)

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20 décembre 1977

Original anglais/traduction française

A : Voir diffusion ci-dessous

Objet : STANAG 4026 (EDITION NO. 2)(AMENDEMENT NO. 2) -
SPECIFICATION DE LA NITROGUANIDINE (PICRITE) POUR
LES LIVRAISONS ENTRE NATIONS DE L'OTAN

Référence : a. MAS(ARMY)(62)645 du 25 septembre 1962

Pièce jointe: STANAG 4026 (Edition No. 2)(Amendement No. 2)

1. Le STANAG mentionné ci-dessus a été promulgué sous couvert du document cité en référence a. Les destinataires sont priés de:

- a. Modifier le STANAG conformément à la pièce jointe.
- b. Modifier l'AAP-4(S) pour tenir compte de l'état actuel de ce STANAG.

2. La Division Soutien de la Defense IS estime qu'il s'agit d'un amendement d'ordre rédactionnel au STANAG; les références de ratification et les détails sur la mise en application diffusés antérieurement restent valables.



(R. LAWSON)
Major-Général, RNLA
Président du BMS

DIFFUSION

Pour attribution : Tous les memores du Bureau Terre MAS excepté UK
UK - Director Standardisation (STAN 2) MOD London

Pour information : SECGENNATO (DS DIV), SACEUR, SACLANT, CINCHAN,
CINCNORTH, CINCENT, CINCSOUTH, FINABEL

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NORTH ATLANTIC TREATY ORGANIZATION
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BUREAU MILITAIRE DE STANDARDISATION (BMS)

1110 BRUSSELS
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MAS(77)609

20 December 1977

Original English/French translation overleaf

To : See distribution below

Subject : STANAG 4026 (EDITION NO. 2)(AMENDMENT NO. 2) -
SPECIFICATION FOR PICRITE (NITROGUANIDINE) FOR
DELIVERIES FROM ONE NATO NATION FOR ANOTHER

Reference : a. MAS(ARMY)(62)645 dated 25 September 1962

Enclosure : STANAG 4026 (Edition No. 2)(Amendment No. 2)

1. The subject STANAG was promulgated under cover of reference a.
Addressees are requested to:

- a. Amend the STANAG in accordance with the enclosure.
- b. Amend AAP-4(S) to reflect the latest status of this STANAG.

2. The Defence Support Division, IS consider this is an editorial amendment to the STANAG; previous ratifying references and implementation details are deemed to be valid.



(R. LAWSON)
Major-General, RMLA
Chairman MAS

DISTRIBUTION

Action : All Members of the Army Board MAS except UK
UK - Director Standardization (STAN 2) MOD London

Information : SECDEFNATO (DS DIV), SACEUR, SACLANT, CINCHAN, CINCNORTH,
CINCENT, CINCOSOUTH, FINABEL

ENCLOSURE I TO
MAS(77)609

STANAG 1026 (Edition No. 2) (Amendment No. 2) -
SPECIFICATIONS FOR PICRITE (NITROGUANIDINE) FOR
DELIVERIES FROM ONE NATO NATION TO ANOTHER

1. Part I - Specification for Picrite. clause 5k:

Units of measurement to read cm^{-1} as follows:

"k. Specific surface:

Class	min	$\text{cm}^{-1}(\text{cm}^2/\text{cm}^3)$	max $\text{cm}^{-1}(\text{cm}^2/\text{cm}^3)$
a.		12.000	18.000
b.		18.001	-

2. Part II - Testing Methods. clause 7k:

Replace by the following new text:

"k. Specific Surface: To be determined either by or with reference to a primary standard air permeametric technique".

PIECE JOINTE I AU
MAS(77)609

STANAG 4026 (Edition No. 2) (Amendement No. 2) -
SPECIFICATION DE LA NITROGUANIDINE (PICRITE) POUR
LES LIVRAISONS ENTRE NATIONS DE L'OTAN

1. Partie I - Specification de la Nitroguanidine (Picrite)
Clause 5k:

Pour les unités de mesure il faut lire cm^{-1} comme suit:

"k. Surface spécifique:

Catégorie	min. cm^{-1} (cm^2/cm^3)	max cm^{-1} (cm^2/cm^3)
a.	12.000	18.000
b.	18.001	-

2. Partie II - Méthodes d'essai - clause 7k:

Remplacer par le nouveau texte suivant:

"k. Surface spécifique: doit être déterminée soit par une technique standard primaire de perméabilité à l'air, soit par référence à cette technique."

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ARMY BOARD

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MAS (ARMY)(67)389

18 September 1967

NAVY/ARMY/AIR

Original English/French translation

To : See Distribution below.

Subject : STANAG 4026 (EDITION NO. 2)(AMENDMENT NO. 1) - SPECIFICATION FOR PICRITE (NITROGUANIDINE) FOR DELIVERIES FROM ONE NATO NATION TO ANOTHER


References : a. AC/74 - R/150(II) dated 12 August 1964
b. MAS(ARMY)(62)645 dated 25 September 1962

Enclosure : I. Amendment No. 1 to STANAG 4026 (Edition No. 2)

1. At its meeting of the 15 July 1964 the Armaments Committee decided (reference a.) that unclassified STANAGs for which it had the responsibility could be released to NATIONAL industry for non-military use, provided proprietary rights, which might be contained therein, were properly identified and adequately protected.

2. In view of 1. above and pending republication of STANAG No. 4026 in the current format, this amendment is to be attached to the inside cover of STANAG No. 4026 (Edition No. 2).

3. AAP-4(J) should be amended to reflect the latest status of this STANAG.


H. HASS,
Major General, German Army,
Chairman MAS

DISTRIBUTION

Action : All Members of the Army Board MAS.

Information : Remainder of Army Board List B .
SECGENNATO (DS DIV), MC, AGARD, NAMS, SACEUR, SACLAN, CINCHAN, CINCNORTH, CINCENT, CINCSOUTH, CINCEASTLANT, CINCSOUTHLANT, COMSTRIKFITLANT, COMSUBACLAN, COMELITAP, COMLANDCENT, COMAIRCENT, COMLANDSOUTH, COMLANDSEAST, COMAIRSOUTH, COMSTRIKFORSOUTH, COMAIRCHAN, COMLANDNORWAY, COMNAVCSOUTH, COMNORTHAG, COMCENTAG COMFOURATAF, FIABEL, WEU, PAKISTAN, SECNAS, SECNAVED, SECAIRBD, TERMINOLOGY COORDINATOR MAS, MAS LIBRARY, FILE, FLOAT, EXTRA COPIES (30).

(TO BE ATTACHED TO THE INSIDE COVER OF STANAG)

This STANAG and the information contained herein may not be disclosed to others except as provided in the instructions given below entitled "Protection of Proprietary Rights".

PROTECTION OF PROPRIETARY RIGHTS

Any release, for any purpose whatsoever, of technical information included in this STANAG should be accompanied by the following statement:

"Proprietary Rights" (1)

The receipt of the present information does not in any way constitute a licence to utilise proprietary technical information that might be disclosed herein.

Claims to proprietary rights included in this information and known to the originating Government are as follows:

Subject

Claimant

No proprietary rights have been claimed by member nations.

The indications given in the above list do not exempt all those who would be led to use the present information from the obligation of verifying the completeness of this list. It is the responsibility of such users to ensure that no other proprietary rights apply to the present information and complete with third parties (whether governments or individuals) any agreements which may be necessary in respect of the use of the information.

1. The restriction concerning the above stated proprietary rights in respect of the technical information herein contained should be clearly indicated by all national and international authorities or any individuals on releasing the whole or part of the information for any purpose whatsoever. To this end the present statement under the title "Proprietary Rights" should be attached to every release of the technical information herein contained."

NOTE

- (1) "Proprietary rights" are to be understood in the broadest sense as covering rights in "know-how" as well as rights in inventions not yet patented and rights in patents, design, trade marks, utility models and copyrights.

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STANAG No 4026
(Edition No. 2)

25 September/septembre 1962

NORTH ATLANTIC TREATY ORGANISATION
ORGANISATION DU TRAITE DE L'ATLANTIQUE NORD

MILITARY AGENCY FOR STANDARDIZATION
BUREAU MILITAIRE DE STANDARDISATION

STANDARDIZATION AGREEMENT ACCORD DE STANDARDISATION

SUBJECT
OBJET

SPECIFICATION FOR PICRITE (NITROGUANIDINE)
FOR DELIVERIES FROM ONE NATO NATION TO ANOTHER

SPECIFICATION DE LA NITROGUANIDINE
(PICRITE) POUR LES LIVRAISONS ENTRE NATIONS DE L'OTAN

OTAN NON CLASSIFIE

ENREGISTREMENT DES AMENDEMENTS

Amdt No	Reference and date of Amendment	Date entered	By whom entered Signature and Rank	Remarks
	Référence et date de l'amendement	Date à laquelle l'amendement a été effectué	Effectué par Signature et grade	Observations

Agreed English/French Text

STANAG NO. 4026

(Edition No.2)

NAVY/ARMY/AIR

TERMS OF AGREEMENT

SPECIFICATION FOR PICRITE (NITROGUANIDINE)

FOR DELIVERIES FROM ONE NATO

NATION TO ANOTHER.

1. OBJECT

- a. The specification for Picrite (Nitroguanidine) is not identical in every NATO nation. This situation could lead to difficulties should one nation need to use Picrite (Nitroguanidine) previously received from another nation. It has therefore been considered desirable to agree a common minimum specification whose use would be applicable to deliveries of Picrite (Nitroguanidine) from one NATO nation to another.
- b. This agreement is intended for use by the NATO Armed Forces.

2. RELATED DOCUMENTS

Edition No.2 of this STANAG supersedes Edition No.1 promulgated under reference MAS(ARMY)(58)159 dated 27th October 1958.

3. RATIFICATION

<u>National Ratifying References</u>		<u>Service Applicability</u>
BELGIUM	: JLS/113(57)A14, 10th May 1957	: NAVY/ARMY/AIR
CANADA	: - 12th March 1957	: NAVY/ARMY/AIR
DENMARK	: No.4kt.499-360-6, 23rd February 1957	: NAVY/ARMY/AIR
FRANCE	: 591/SP, 19th July 1957	: NAVY/ARMY/AIR
THE FEDERAL REPUBLIC OF GERMANY	: Fd B IV 3-Az 03-51-45 Tgb Nr. 1991/58, 11th July 1958	: NAVY/ARMY/AIR
GREECE	: 2575/090/3, 27th August 1957	: NAVY/ARMY/AIR
ITALY	: 1257, 7th March 1957.	: NAVY/ARMY/AIR
LUXEMBOURG	: No.506, D.465 dated 2nd October 1958	: ARMY
NETHERLANDS	: 15089, 9th December 1957 (See paragraph 5a.(1) below)	: NAVY/ARMY/AIR
NORWAY	: FD jnr A-503/57/201.46/M-15/19.2.1957, 5th March 1957	: NAVY/ARMY/AIR
PORTUGAL	: 143, 26th September 1957	: NAVY/ARMY/AIR
TURKEY	: 37/P-396, 6th September 1957	: NAVY/ARMY/AIR
UNITED KINGDOM	:	:/..../...
UNITED STATES	: D-3-10111/8, 22nd January 1958	: NAVY/ARMY/AIR

4. IMPLEMENTATION

Implementation Details

	<u>Forecast Date</u>	<u>Actual Date</u>	<u>Services Implementing</u>
BELGIUM :		January 1959 :	NAVY ARMY AIR
CANADA :	November 1962	..... :	NAVY ARMY AIR
DENMARK :		February 1959 :	NAVY ARMY AIR
FRANCE :		1959 :	NAVY ARMY AIR
THE FEDERAL REPUBLIC OF GERMANY :	.....	..... :	.... .... ...
GREECE :	.....	..... :	.... .... ...
ITALY :		August 1959 :	NAVY ARMY AIR
LUXEMBOURG :		December 1958 :	ARMY
NETHERLANDS :		January 1959 :	ARMY
		January 1960 :	AIR
	(See paragraph 5a.(1) below)		
NORWAY :	January 1962	..... :	NAVY ARMY AIR
PORTUGAL :		August 1959 :	NAVY ARMY AIR
TURKEY :		July 1959 :	NAVY ARMY AIR
UNITED KINGDOM :	.....	..... :	.... .... ...
UNITED STATES :	.....	..... :	.... .... ...

5. RESERVATIONS

a. To Ratification

(1) NETHERLANDS : The Navy will not implement this STANAG.

b. To Implementation

6. AGREEMENT

- a. The Details of Agreement in the following pages (pages 4 to 6) have been approved by all those Nations shown as ratifying it in paragraph 3 above. No departure may be made from the agreement without consultation with the Production, Logistics and Infrastructure Division and the Military Agency for Standardization.
- b. Nations may propose alterations to the Details of Agreement at any time, should they consider it to have become obsolete or require improvement. Such proposals should be submitted at the earliest opportunity to the Military Agency for Standardization where they will be processed in the same manner as the original agreement.

7. NATIONAL ORDERS, MANUALS AND INSTRUCTIONS

Ratifying Nations agree that National Orders, manuals or instructions implementing this STANAG will include a reference to the STANAG number for the purpose of identification.



M. PONCELET,
Major General, Belgian Army,
Chairman, MAS.

Date of Promulgation: 25 September 1962

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Agreed English/French Text

STANAG 4026
(Edition No.2)

DETAILS OF AGREEMENT

SPECIFICATION FOR PICRITE (NITROGUANIDINE) FOR DELIVERIES

FROM ONE NATO NATION TO ANOTHER.

1. General

The NATO Nations shown in paragraph 3 of the Terms of Agreement as having ratified this STANAG, have agreed to adopt standardized specification for Picrite. Technical details are given in the following paragraphs 3 to 7.

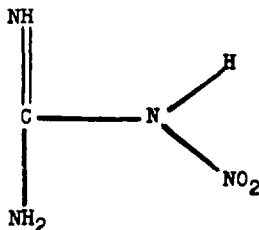
2. Scope of the Agreement

All Picrite manufactured by NATO nations, to be delivered to another NATO nation, except for particular use, must comply with the following minimum requirements.

PART I - PHYSICAL AND CHEMICAL CHARACTERISTICS.

3. Composition

The Picrite must consist of Nitroguanidine corresponding to the formula:



4. Appearance

The material must be in the form of a white crystalline powder.

5. Chemical Data

a. Purity:		min 98.5%	
b. Volatile matter:		max 0.25%	
c. Ash:		max 0.30%	
d. Water soluble impurities:		max 1.0%	
e. Water insoluble impurities:		max 0.2%	
f. Sulphates (as sodium sulphate):		max 0.2%	
g. pH value of water extract:		min 4.5 & max 8.0	
h. Acidity (as sulphuric acid):		max 0.06%	
j. Chlorides (as sodium chloride):		max 0.10%	
k. Specific surface:			
	class	min cm2/cm3	max cm2/cm3
	a	12.000	18.000
	b	18.001	-

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PART II - TESTING METHODS.

6. General

Normal laboratory procedure applies to the determination of the characteristics of the material. The following descriptions are limited to the definition of particulars to be complied with when making the tests.

7. Chemical Tests

- a. Purity: The Nitroguanidine content shall be determined by the nitrometer method, on a dried portion of the sample weighing about 1 g. The converting factor nitro-nitrogen to nitroguanidine is 7.430.
- b. Volatile matter: To be determined on 5 g₄ of the material by drying for two hours at $100^{\circ} \pm 2^{\circ}\text{C}$.
- c. Ash: To be determined on 5 g of the material impregnated with 15 ml of melted paraffin wax burnt and heated at 900°C for 30 minutes.
- d. Water soluble impurities: To be determined on 5 g, of material to be washed with 100 ml of water at $20^{\circ} \pm 0.2^{\circ}\text{C}$ for 4 hours. Dry an aliquot part of the extract under 60°C . Correction to be applied for dissolved nitroguanidine (0.054 g. of sample).
- e. Water insoluble impurities: To be determined on 5 g of material dissolved in 200 ml of boiling distilled water. The insoluble residue to be dried for 1 hour at 110°C .
- f. Sulphates: To be determined on 5 g of material by precipitation with barium chloride. To be expressed as sodium sulphate.
- g. pH value: To be determined on approximately 5 g of material dissolved in 200 ml of freshly boiled distilled water cooled to 80°C and maintained at $80^{\circ} \pm 2^{\circ}\text{C}$ until the solution is complete. Use a glass electrode pH meter.
- h. Acidity:
 - Weigh exactly 10 g \pm 0.01 g of piorite (nitroguanidine) and place it in a 500 ml extraction flask.
 - Add 200 ml of distilled water measured in a 250 ml test tube. This water must be freshly boiled and at a temperature of 80°C .
Keep the whole content of the flask at 80°C , until the Piorite (Nitroguanidine) is completely dissolved.
 - Leave to cool at room temperature (approximately 20°C).
 - Add 8 to 10 drops of methyl red/methylene blue indicator (0.1 g of methyl red and 0.05 g of methylene blue in 100 ml of 95% ethyl alcohol) and titrate at once, without filtering, using 0.05 N sodium hydroxide. For this purpose use a 5 ml semi-microburette graduated in 1/50 ml, 1 ml corresponding to a length of 70 to 80 mm.
 - Add the 0.05 N sodium hydroxide solution drop by drop to the flask, shaking until the indicator end-point is reached.
 - Note the volume V_1 of solution used.

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7. h (Continued)

- Carry out a blank test simultaneously under identical conditions to those of the actual determination. For this purpose, place in a 500 ml or larger extraction flask 200 ml of distilled water and 8 to 10 drops of methyl red/methylene blue indicator. Titrate with 0.05 N sodium hydroxide solution. Note the volume V_2 of solution used.
- The acidity of the Picrite (Nitroguanidine) expressed as percentage of sulphuric acid is given by:

$$0.0245 (V_1 - V_2) f$$

where f is the correction factor for the normality of the sodium hydroxide solution.

- j. Chlorides: Presence of chlorides is to be detected by opalescence test with silver nitrate. If chlorides appear to be present, dissolve 10 g of the material in 200 ml of boiling water and cool the solution rapidly in ice-cold water; filter it through a Buchner funnel, washing the crystals once with water. Estimate the chlorides in the filtrate in any usual manner.
- k. Specific surface: To be determined from the average diameter of particles. The specific surface in square centimeters per cubic centimeter of solid material (S_o) derives from the average diameter of particles in microns d_m by the relation $S_o = \frac{60000}{d_m}$.

☆ U S. GOVERNMENT PRINTING OFFICE: 1970-433-688/535